

Datasheet for ABIN3095494

SMC2 Protein (AA 1-1197) (Strep Tag)



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1 Image

Overview

Quantity:	1 mg
Target:	SMC2
Protein Characteristics:	AA 1-1197
Origin:	Human
Source:	Tobacco (<i>Nicotiana tabacum</i>)
Protein Type:	Recombinant
Purification tag / Conjugate:	This SMC2 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Sequence:	MHIKSIILEG FKSYAQRTEV NGFDPLFNAI TGLNGSGKSN ILDSICFLG ISNLSQVRAS NLQDLVYKNG QAGITKASVS ITFDNSDKKQ SPLGFEVHDE ITVTRQVVIG GRNKYLINGV NANNTRVQDL FCSVGLNVNN PHFLIMQGRI TKVLNMKPPE ILSMIEEAAG TRMYEYKKIA AQKTIEKKEA KLKEIKTILE EEITPTIQL KEERSSYLEY QKVMREIEHL SRLYIAYQFL LAEDTKVRS EELKEMQDKV IKLQEELSEN DKKIKALNHE IEELEKRKDK ETGGILRSLE DALAEAQRVN TKSQSAFDLK KKNLACEESK RKELEKNMVE DSKTLAAEK EVKKITDGLH ALQEASNKDA EALAAAQHF NAVSAGLSSN EDGAEATLAG QMMACKNDIS KAQTEAKQAQ MKLKHAQQEL KNKQAEVKKM DSGYRKDQEA LEAVKRLKEK LEAEMKKLNY EENKEESLLE KRRQLSRDIG RLKETYEALL ARFPNLR Fay KDPEKNWNRN CVKGLVASLI SVKDTSATTA LELVAGERLY NVVVDTEVTG KKLLER GELK RRYTIPLNK ISARCIAPET LRVAQNLVGP DNVHVALSLV EYKPELQKAM EFVFGTTFVC DNMDNAKKVA FDKRIMTRTV TLGGDVFDPH GTLSGGARSQ AASILTKFQE LKDVQDELRI KENELRALEE ELA GLKNTAE KYRQLKQWE MKTEEADLLQ
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TKLQSSSYHK QQEELDALKK TIEESEETLK NTKEIQRKAE EKYEVLNKM KNAEAERERE
LKDAQKKLDC AKTKADASSK KMKEKQQEVE AITLELEELK REHTSYKQQL EAVNEAIKSY
ESQIEVMAAE VAKNKESVVK AQEEVTKQKE VITAQDTVIV AKYAEVAKHK EQNNDSQLKI
KELDHNISKH KREAEDGAAK VSKMLKDYDW INAERHLFGQ PNSAYDFKTN NPKEAGQRLQ
KLQEMKEKLG RNVNMRAMNV LTEAEERYND LMKKKRIVEN DKSKILTIE DLDQKKNQAL
NIAWQKVNKD FGSIFSTLLP GANAMLAPPE GQTVLDGLEF KVALGNTWKE NLTELSGGQR
SLVALSLILS MLLFKPAPIY ILDEVDAALD LSHTQNIGQM LRTHFTHSQF IVVSLKEGMF
NNANVLFKTK FVDGVSTVAR FTQCQNGKIS KEAKSKAKPP KGAHVEV

Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.

Characteristics:

Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified by multi-step, protein-specific process to ensure correct folding and modification.
- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a **made-to-order protein** and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein.

The big advantage of ordering our **made-to-order proteins** in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Product Details

Concentration:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:

Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®):

1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. Eluate fractions are analyzed by SDS-PAGE.
2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.

Purity:

>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

Endotoxin Level:

Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)

Grade:

Crystallography grade

Target Details

Target:

SMC2

Alternative Name:

SMC2 ([SMC2 Products](#))

Background:

Structural maintenance of chromosomes protein 2 (SMC protein 2) (SMC-2) (Chromosome-associated protein E) (hCAP-E) (XCAP-E homolog),FUNCTION: Central component of the condensin complex, a complex required for conversion of interphase chromatin into mitotic-like condense chromosomes. The condensin complex probably introduces positive supercoils into relaxed DNA in the presence of type I topoisomerases and converts nicked DNA into positive knotted forms in the presence of type II topoisomerases. {ECO:0000269|PubMed:11136719}.

Molecular Weight:

135.7 kDa

UniProt:

[O95347](#)

Application Details

Application Notes:

In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Application Details

Comment:	<p>ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from <i>Nicotiana tabacum</i> c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.</p> <p>During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!</p>
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

Images



Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process